

START/STOP AUDIO ENCODER APPARATUS AND METHOD FOR  
SYNCHRONIZING DIGITAL AUDIO AND VIDEO SIGNALS

Abstract of the Disclosure

The invention uses digital signal processing (DSP) techniques to synchronize an audio encoding process with a video synchronization signal. Namely, the encoder parameters of a DSP microchip are preset according to characteristics of an audio frame. A buffer temporarily stores the audio frame prior to sending it to an encoder. The buffer then transfers the frame in response to receiving a video synchronization signal in conjunction with authorization from a microprocessor. As such, the encoding sequence of the audio frame coincides with the video synchronization signal. Since the corresponding video frame is already slaved to the video synchronization signal, the audio samples are effectively processed in sequence with the video data. Prior to outputting the encoded audio frame to a multiplexor, the encoder sends a value to the microprocessor representing the difference between the end of the encoded audio frame and a second video synchronization signal. Those audio samples are ultimately discarded from the bitstream. Thus, synchronization is achieved by beginning and effectively ending the encoding processes of both the audio and video data, respectively, in sequence with a common video synchronization clock.

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